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Background

While being supported by national societies, management of low-risk venous thromboembolisms (VTEs) in the outpatient setting with direct oral anticoagulant medications (DOACs), has yet to become standard of care. We sought to determine the differences between rural and academic hospitals in VTE management and disposition of patients during the COVID pandemic.

Methods

This retrospective study used data from a quality improvement database to evaluate the management and treatment of patients diagnosed with VTE in our emergency departments during the COVID pandemic between 9/1/2020 and 2/28/2021 in any one of our 6 network locations across NE PA. Three of these sites have affiliations and are considered teaching/academic hospitals, while the other 3 are located in rural settings.

Results

Of 454 patients diagnosed with VTE, 291 patients were at our academic hospitals and 163 in our rural hospitals. Data include 235 males and 219 females, with an average age of 58 and 61, respectively. Patients treated for VTE in the rural hospitals had an on average shorter length of stay (LOS) prior to disposition (372 min. rural vs. 404 min. academic, $p=0.204$). Further, patients seen in rural settings were less likely to be admitted than in academic settings (45.4% (N=74) rural vs. 59.8% (N=174) academic admit rate).

The 30-day return rate for 'all causes' following an ED visit, was almost 2x greater in the rural setting vs. academic (30.7% (N=50) vs. 17.5% (N=51), respectively). Despite this, the 30-day return rates *attributable to VTE* were similar (24% (N=12) rural, 23.5% (N=12) academic).

At the 6 month mark, return rates *attributable to VTE* at rural locations were low but had an almost 1.6x higher rate of return (7.7% (N=2) rural vs 4.8% (N=3) academic).

Rural locations utilized different rates of DOACs, with rural hospitals using rivaroxaban at a 2x higher rate than academic settings (45.3% (N=34) rural vs 20.2% (N=36) academic). Apixaban was more frequently used at academic vs rural settings (64.0% (N=114) academic vs. 41.3% (N=31) rural).

Rural vs academic settings had similar rates of PCP follow up (89.7% (N=261) vs 81.6% (N=133), respectively). Academic settings had an almost 2x higher rate of coagulation clinic follow up vs. rural settings (6.9% (N=20) vs 3.7% (N=6), respectively).

Conclusions

The findings in this single network study show substantial differences in the management of VTE during the Covid pandemic in rural versus academic settings. Future research involving a more detailed understanding of these differences between rural vs. academic hospital settings is indicated.

DIRECT ORAL ANTICOAGULANT MEDICATIONS UTILIZATION

